Title: | ModSim '97 Summary

Author(s):

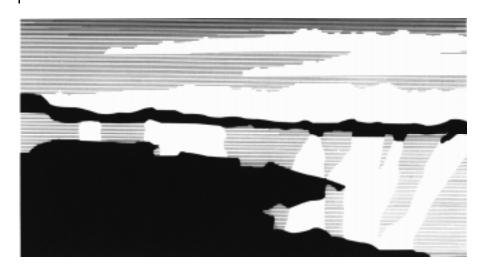
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Submitted to:

Environmental Management Modeling and Simulation workshop Albuquerque, NM

September 22-24, 1997

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### **ModSim '97 Summary**



### ModSim '97 USA

Workshop on the Role of Modeling and Simulation in Environmental Management

22-24 September 1997

Albuquerque, New Mexico USA

Los Alamos

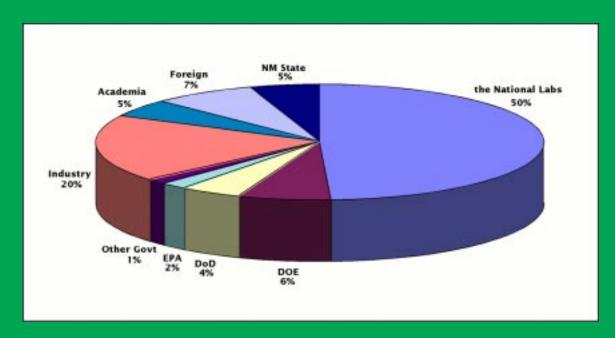


### **Workshop Objectives**

- Evaluate if and where existing modeling techniques can be better applied and promoted for making effective decisions for environmental problem solving, planning, and management,
- Evaluate whether new models, tools, and methodologies should be developed that are superior to existing ones, and how they can be tailored to specifically address areas of concern for DOE, Department of Defense (DoD), Environmental Protection Agency (EPA), and other governmental organizations.



# Attendees (201 total)





### **Exec. Steering Committee**

- Gerald G. Boyd, Deputy Assistant Secretary (Acting), DOE/EM Office of Science and Technology
- Caroline B. Purdy, DOE/EM Office of Science and Technology (EM-53)
- Mathew J. Zenkowich, DOE/EM Office of Waste Management (EM-35)
- Harry M. Thron Jr., DOE/EM Office of Environmental Restoration (EM-42)
- John A. Marchetti, DOE/Defense Programs (DP-45)
- Steven V. Cary, Department of Defense/ODUSD(ES)
- Heriberto Cabezas, EPA National Risk Management Research Laboratory
- W. Lamar Miller, University of Florida
- David B. McWhorter, Colorado State University
- Alan Pritsker, Alan Pritsker, Inc.
- Bruce Erdal, Marja Shaner, Greg Valentine, Ed Van Eeckhout, Los Alamos National Laboratory



# Recommendation 1: Modeling/Simulation Part of Project Planning







### Recommendation 2: Couple Environmental, Social, and Economic Systems

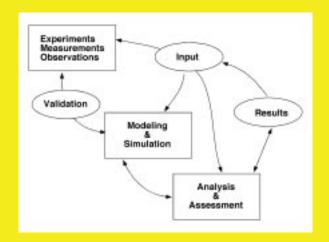


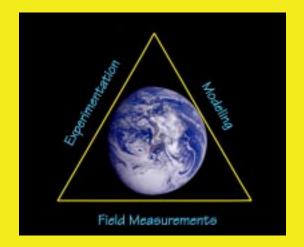
### Recommendation 3: Interagency and International Working Group Needed





### Recommendation 4: View Modeling/Simulation As Important Part of Solution







### **Implementation**

- Form OST Working Group to define program and implement workshop recommendations
- Possible Membership:

**10ST** 

5 end-users

5 workshop participants/experts

1 DoD

1 EPA





### **Implementation Tasks**

- Define an approach that will better integrate existing modeling/simulation techniques into project planning
- Identify and pursue appropriate modeling/simulation techniques, emphasizing those that couple environmental, economic, and social systems
- Explain via case studies how modeling/simulation can best be used in the environmental arena (and the importance of field data and experimentation)
- Prioritize the top recommendations from each workshop interest area and develop a strategy to implement them



### **Key Problem Area Ldrs (1)**

#### Actinides

- Joel D. Williams, Los Alamos National Laboratory
- Beverly Ramsey, ATL

#### **Subsurface Contamination**

- David B. McWhorter, Colorado State University
- Jeff Holland, US Army Corps of Engineers, Waterways Experiment Station
- Steve Yabusaki, Pacific Northwest National Laboratory
- Karsten Pruess, Lawrence Berkeley National Laboratory

#### **Decontamination and Decommissioning**

- Paul W. Hart, DOE/Federal Energy Technology Center
- Steven J. Bossart, DOE/Federal Energy Technology Center

#### **Environmental Security**

- Willard J. Hannon, Lawrence Livermore National Laboratory
- Everett P. Springer, Los Alamos National Laboratory



## **Key Problem Area Ldrs (2)**

#### **Health and Ecological Effects**

- Thomas B. Kirchner, Carlsbad Environmental Monitoring and Research Center
- John S. Young, Hampshire Research
  Jeanne Fravel-Meyers, Dept. of Navy, Joint Warfare Applications Dept.
  John Krummel, Argonne National Laboratory

#### Infrastructure

• R. Wayne Hardie, Los Alamos National Laboratory

#### **Manufacturing/Pollution Prevention**

- John Marchetti, DOE/Defense Programs
- Scott Butner, Pacific Northwest National Laboratory/Seattle

#### **Waste Treatment**

- Abbas Ghassemi, New Mexico State University/WERC
- W. Lamar Miller, University of Florida



### **LANL Organizing Committee**

#### **Reporters (Stewards):**

- Actinides: David Janecky
- Subsurface Contamination: Kay Birdsell, Bryan Travis
- Decontamination and Decommissioning: Johnny Harper
- Environmental Security: Dennis Hjeresen
- Health and Ecological Effects: Roger Ferenbaugh, Mike Ebinger
- Infrastructure: John Pendergrass
- Manufacturing/Pollution Prevention: Jeremy Boak
- Waste Treatment: Jerry Freer

#### Staff

- Guiding Light: Bruce Erdal
- Co-Chairs: Greg Valentine, Ed Van Eeckhout
- Technical Host: Marja Shaner
- Administrative Support: Vanessa de la Cruz
- Foreign Visitor Arrangements: Georgia Sanchez, Miriam Oudejans (LATA)
  Database Support: Crystal Rodarte (Student), Jamie Romero (Student)

